

## Literaturliste Schwall und Sunk: alle Bereiche

- Acreman, M. C. und A. J. D. Ferguson (2010). Environmental flows and the European Water Framework Directive. *Freshwater Biology* 55(1): 32-48.
- Almodóvar, A. und G. G. Nicola (1999). Effects of a small hydropower station upon brown trout *Salmo trutta* L. in the River Hoz Seca (Tagus basin, Spain) one year after regulation. *Regulated Rivers: Research & Management* 15(5): 477-484.
- Alp, M. (2006). Nahrungsökologie der Bachforelle in alpinen Gewässern mit Schwallbetrieb. Mathematisch-naturwissenschaftliche Fakultät I: Institut für Biologie. Berlin, Humboldt-Universität zu Berlin. Masterarbeit.
- Ammann, M. (1993). Das durch Wasserkraftnutzung veränderte Abflussregime eines alpinen Fließgewässers und dessen Auswirkungen auf das Makrozoobenthos. Zürich, ETH. Dissertation.
- Anglin, D. R., S. L. Haeseker, et al. (2006). Effects of hydropower operations on spawning habitat, rearing habitat, and stranding/entrapment mortality of Fall Chinook Salmon in the Hanford Reach of the Columbia River.
- Anselmetti, F. S., R. Bühler, et al. (2007). Effects of Alpine hydropower dams on particle transport and lacustrine sedimentation. *Aquatic Sciences - Research Across Boundaries* 69(2): 179-198.
- AquaPlus (2009). Kraftwerk am Ijentalerbach, Nesslau. Erneuerung und Erweiterung der bestehenden Wasserfassung und des Stauweihers. Gewässer- und fischökologische Begleituntersuchungen. Bericht z. H. Robert Fuchs AG, Schindellegi.
- AquaTerra (2007). Umweltverträglichkeitsbericht Kraftwerk Innertkirchen 1, Aufwertung 2. Etappe. Fachbereich Gewässerökologie. Bericht z. H. KWO AG.
- Arenillas Girola, L. (2008). The Manzanares River restoration (Northern Madrid, Spain): demolition of an obsolete dam and riverine ecosystem rehabilitation. 4th ECRR Conference on River Restoration, Venice S. Servolo Island, Italy.
- ARGE Trübung Alpenrhein (2001). Trübung und Schwall im Alpenrhein. Synthesebericht im Auftrag der IRKA, Internationale Regierungskommission Alpenrhein, Projektgruppe Grundwasser- und Fischökologie, Vaduz.
- Armanini, D. G., N. Horrigan, et al. (2011). Development of a benthic macroinvertebrate flow sensitivity index for Canadian rivers. *River Research and Applications* 27(6): 723-737.
- Armstrong, J. D., P. S. Kemp, et al. (2003). Habitat requirements of Atlantic salmon and brown trout in rivers and streams. *Fisheries Research* 62(2): 143-170.
- Arthington, A. H., R. J. Naiman, et al. (2010). Preserving the biodiversity and ecological services of rivers: new challenges and research opportunities. *Freshwater Biology* 55(1): 1-16.
- Ashby, S. L., J. L. Myers, et al. (1999). The effects of hydropower releases from Lake Texoma on downstream water quality. *Journal of Freshwater Ecology* 14(1): 103-112.

- Auer, N. A. (1996). Response of spawning lake sturgeons to change in hydroelectric facility operation. *Transactions of the American Fisheries Society* 125(1): 66-77.
- Auer, S. (2010). Die Auswirkungen von Schwallbetrieb auf juvenile Äschen hinsichtlich Wachstum und Dichte in Abhängigkeit unterschiedlicher Habitattypen. Departement für Wasser, Atmosphäre und Umwelt. Wien, Universität für Bodenkultur. Masterarbeit.
- AXPO (2010). Zukunft Wasserkraft - Linthal 2015. Broschüre der Kraftwerke Linth Limmern.
- BAFU (2012). Auswirkungen der Klimaänderung auf Wasserressourcen und Gewässer. Synthesebericht zum Projekt «Klimaänderung und Hydrologie in der Schweiz» (CCHydro). Bundesamt für Umwelt, Bern. Umwelt-Wissen Nr. 1217.
- Bain, M. B. (2007). Hydropower operations and environmental conservation: St. Marys River, Ontario and Michigan.
- Bain, M. B. (2010). Restoration of biological conditions in rivers by increasing base flow compatible with hydropeaking operations. 8th International Symposium on Ecohydraulics, Seoul, Korea, International Association of Hydro-environment Engineering and Research.
- Bain, M. B., J. T. Finn, et al. (1988). Streamflow regulation and fish community structure. *Ecology* 69(2): 382-392.
- Bain, M. B. und M. S. Meixler (2008). A target fish community to guide river restoration. *River Research and Applications* 24(4): 453-458.
- Baumann, P. (2004). Revitalisierung und Benthos der Rhone. Publikation des Rhone-Thur Projekts, Eawag.
- Baumann, P., A. Kirchhofer, et al. (2012). Sanierung Schwall/Sunk - Strategische Planung. Ein Modul der Vollzugshilfe Renaturierung der Gewässer. Bundesamt für Umwelt, Bern. Umwelt-Vollzug Nr. 1203.
- Baumann, P. und I. Klaus (2003). Gewässerökologische Auswirkungen des Schwallbetriebes: Ergebnisse einer Literaturstudie. *Mitteilungen zur Fischerei*. Bern, BUWAL. 75.
- Baumann, P. und T. Meile (2004). Makrozoobenthos und Hydraulik in ausgewählten Querprofilen der Rhone. *Wasser Energie Luft* 96(11/12).
- Baumann, P. und U. Schälchli (2002). Trübung und Schwall im Alpenrhein. *Wasser Energie Luft* 94(11/12).
- Becker, C. D., D. H. Fickeisen, et al. (1981). Assessment of impacts from water level fluctuations on fish in the Hanford Reach, Columbia River.
- Becker, C. D., D. H. Fickeisen, et al. (1982). Effects of dewatering on chinook salmon redds: tolerance of four development phases to daily dewaterings. *Transactions of the American Fisheries Society* 111.
- Bell, E., W. G. Duffy, et al. (2001). Fidelity and survival of juvenile coho salmon in response to a flood. *Transactions of the American Fisheries Society* 130(3).

- Bell, E., S. Kramer, et al. (2008). Salmonid fry stranding mortality associated with daily water level fluctuations in Trail Bridge Reservoir, Oregon. *North American Journal of Fisheries Management* 28(5): 1515-1528.
- Benenati, P. L., J. P. Shannon, et al. (1998). Desiccation and recolonization of phyto-benthos in a regulated desert river: Colorado River at Lees Ferry, Arizona, USA. *Regulated Rivers: Research & Management* 14(6): 519-532.
- Beniston, M., M. Stoffel, et al. (2011). Impacts of climatic change on water and natural hazards in the Alps: Can current water governance cope with future challenges? Examples from the European ACQWA project. *Environmental Science & Policy* 14(7): 734-743.
- Berg, L. und T. G. Northcote (1985). Changes in territorial, gill-flaring, and feeding behavior in juvenile Coho Salmon (*Oncorhynchus kisutch*) following short-term pulses of suspended sediment. *Canadian Journal of Fisheries and Aquatic Sciences* 42(8): 1410-1417.
- Bergey, E. A., P. Bunlue, et al. (2010). Environmental and biological factors affect desiccation tolerance of algae from two rivers (Thailand and New Zealand) with fluctuating flow. *Journal of the North American Benthological Society* 29(2): 725-736.
- Berland, G., T. Nickelsen, et al. (2004). Movements of wild atlantic salmon parr in relation to peaking flows below a hydropower station. *River Research and Applications* 20(8): 957-966.
- Bernez, I., H. Daniel, et al. (2004). Combined effects of environmental factors and regulation on macrophyte vegetation along three rivers in western France. *River Research and Applications* 20(1): 43-59.
- Bernez, I. und T. Ferreira (2007). River macrophytes in regulated mediterranean-type rivers of southern Portugal. *Belgian Journal of Botany* 140(1): 136-139.
- BGF (2009). Erneuerung Kraftwerk Amsteg. Gewässerökologisch verträgliche Ausgestaltung des Schwallregimes. Schlussbericht z. H. SBB.
- Bieri, M. und A. J. Schleiss (2011). Modelling and analysis of hydropeaking in alpine catchments equipped with complex hydropower schemes. 10th Hydraulics Conference, Brisbane, Australia.
- Bieri, M. und A. J. Schleiss (2011). Modelling and analysis of hydropeaking in alpine catchments equipped with complex hydropower schemes. 10th Hydraulics Conference. E. Australia. Brisbane, Australia: 2752-2759.
- Bieri, M., A. J. Schleiss, et al. (2011). Flood retention in alpine catchments equipped with complex hydropower schemes – A case study of the upper Aare catchment in Switzerland. *Dams and Reservoirs under Changing Challenges*. A. J. Schleiss and R. Boes. Taylor & Francis, London.
- Binns, N. A. und F. M. Eiserman (1979). Quantification of fluvial trout habitat in Wyoming. *Transactions of the American Fisheries Society* 108(3): 215-228.
- Blaschke, A. P., K.-H. Steiner, et al. (2003). Clogging processes in hyporheic interstices of an impounded river, the Danube at Vienna, Austria. *International Review of Hydrobiology* 88(3-4): 397-413.

- Bo, T., S. Fenoglio, et al. (2007). Effects of clogging on stream macroinvertebrates: An experimental approach. *Limnologica - Ecology and Management of Inland Waters* 37(2): 186-192.
- BOKU (2011). Fließrinnen HyTEC. from <http://hydropeaking.boku.ac.at/hytec.html>.
- Bonalumi, M., F. S. Anselmetti, et al. (2011). Particle dynamics in high-Alpine proglacial reservoirs modified by pumped-storage operation. *Water Resources Research* 47(9).
- Bonalumi, M., F. S. Anselmetti, et al. (2012). Modelling of temperature and turbidity in a natural lake and a reservoir connected by pumped-storage operations. *Water Resources Research* 48.
- Bonalumi, M. und M. Schmid (2011). Projekt Lagobianco. Beilage 2 zum Hauptbericht UVP 1. Stufe: Fachgutachten Modellierung. Bericht z. H. Ecowert GMBH.
- Borsuk, M. E., P. Reichert, et al. (2006). Assessing the decline of brown trout (*Salmo trutta*) in Swiss rivers using a Bayesian probability network. *Ecological Modelling* 192(1-2): 224-244.
- Bosco Imbert, J. und J. A. Perry (2000). Drift and benthic invertebrate responses to stepwise and abrupt increases in non-scouring flow. *Hydrobiologia* 436(1): 191-208.
- Bovee, K. D., B. L. Lamb, et al. (1998). Stream habitat analysis using the instream flow incremental methodology. USGS/BRD-Information and Technology Report. USGS, Biological Resources Division: 131.
- Bovee, K. D., T. J. Waddle, et al. (2004). Quantification of habitat patch persistence in rivers affected by hydropeaking. AWRA Spring Specialty Conference: GIS and Water Resources III, Nashville, TN, USA, American Water Resources Association (AWRA).
- Bowen, Z. H., M. C. Freeman, et al. (1998). Evaluation of generalized habitat criteria for assessing impacts of altered flow regimes on warmwater fishes. *Transactions of the American Fisheries Society* 127(3): 455-468.
- Bradford, M. J. (1997). An experimental study of stranding of juvenile salmonids on gravel bars and in sidechannels during rapid flow decreases. *Regulated Rivers: Research & Management* 13(5): 395-401.
- Bradford, M. J., G. C. Taylor, et al. (1995). An experimental study of the stranding of juvenile coho salmon and rainbow trout during rapid flow decreases under winter conditions. *North American Journal of Fisheries Management* 15(2): 473-479.
- Bragg, O. M., A. R. Black, et al. (2005). Approaching the physical-biological interface in rivers: a review of methods for ecological evaluation of flow regimes. *Progress in Physical Geography* 29(4): 506-531.
- Bratrich, C., B. Truffer, et al. (2004). Green hydropower: a new assessment procedure for river management. *River Research and Applications* 20: 865-882.
- Brenden, T. O., B. R. Murphy, et al. (2006). Effect of discharge on daytime habitat use and selection by muskellunge in the New River, Virginia. *Transactions of the American Fisheries Society* 135(6): 1546-1558.

- Bretschko, G. und O. Moog (1990). Downstream effects of intermittent power generation. *Water Science and Technology* 22(5): 127-135.
- Brooker, M. P. und T. H. Croaker (1981). The impact of impoundments on the downstream fisheries and general ecology of rivers. *Advances in Applied Biology*: 91-152.
- Bruder, A. (2012). Bewertung von Massnahmen zur Beseitigung wesentlicher Beeinträchtigungen durch Schwall und Sunk. Eawag, Dübendorf.
- Bruder, A., S. Schweizer, et al. (2012). Schwall und Sunk: Auswirkungen auf die Gewässerökologie und mögliche Sanierungsmassnahmen. *Wasser Energie Luft* 104(4): 257-264.
- Bruder, A., S. Vollenweider, et al. (2012). Schwall und Sunk: Planung und Bewertung von Sanierungsmassnahmen. Möglichkeiten und Empfehlungen aus wissenschaftlicher Sicht. *Wasser Energie Luft* 104(4): 265-272.
- Bruno, M. C., B. Maiolini, et al. (2009). Impact of hydropeaking on hyporheic invertebrates in an Alpine stream (Trentino, Italy). *Annales de Limnologie - International Journal of Limnology* 45(03): 157-170.
- Bruno, M. C., B. Maiolini, et al. (2010). Short time-scale impacts of hydropeaking on benthic invertebrates in an Alpine stream (Trentino, Italy). *Limnologica - Ecology and Management of Inland Waters* 40(4): 281-290.
- Bruno, M. C., A. Siviglia, et al. (2012). Multiple drift responses of benthic invertebrates to interacting hydropeaking and thermopeaking waves. *Ecohydrology* (im Druck).
- Brusven, M. A. (1984). The distribution and abundance of benthic insects subjected to reservoir-release flows in the Clearwater River, Idaho, USA. Second International Symposium on Regulated Streams, Oslo, Norway, Universitetsforlaget AS.
- Bunn, S. E. und A. H. Arthington (2002). Basic principles and ecological consequences of altered flow regimes for aquatic biodiversity. *Environmental Management* 30(4): 492-507.
- Bunt, C. M., S. J. Cooke, et al. (1999). Movement and summer habitat of brown trout (*Salmo trutta*) below a pulsed discharge hydroelectric generating station. *Regulated Rivers: Research & Management* 15(5): 395-403.
- Burkhardt-Holm, P. (2008). Decline of brown trout (*Salmo trutta*) in Switzerland - How to assess potential causes in a multi-factorial cause-effect relationship. *Marine Environmental Research* 66(1): 181-182.
- Burt, D. W. und J. H. Mundie (1986). Case histories of regulated stream flow and its effect on Salmonid populations. Canadian Technical Report of Fisheries and Aquatic Sciences.
- Cadenasso, M. L., S. T. A. Pickett, et al. (2003). A framework for a theory of ecological boundaries. *BioScience* 53(8): 750-758.
- Calhoun, S. W., E. G. Zimmerman, et al. (1982). Stream regulation alters acute temperature preferenda of Red Shiners, *Notropis lutrensis*. *Canadian Journal of Fisheries and Aquatic Sciences* 39(2): 360-363.

- Camargo, J. A. und N. J. Voelz (1998). Biotic and abiotic changes along the recovery gradient of two impounded rivers with different impoundment use. *Environmental Monitoring and Assessment* 50(2): 143-158.
- Cardenas, M. B. (2010). Lessons from and assessment of Boussinesq aquifer modeling of a large fluvial island in a dam-regulated river. *Advances in Water Resources* 33(11): 1359-1366.
- Carolli, M., M. C. Bruno, et al. (2011). Responses of benthic invertebrates to abrupt changes of temperature in flume simulations. *River Research and Applications* 28(6).
- Carron, J. C. und H. Rajaram (2001). Impact of variable reservoir releases on management of downstream water temperatures. *Water Resources Research* 37(6): 1733-1743.
- Casado, C., D. G. de Jalon, et al. (1989). The effect of an irrigation and hydroelectric reservoir on its downstream communities. *Regulated Rivers: Research & Management* 4(3): 275-284.
- Cattanéo, F., N. Lamouroux, et al. (2002). The influence of hydrological and biotic processes on brown trout (*Salmo trutta*) population dynamics. *Canadian Journal of Fisheries and Aquatic Sciences* 59(1): 12-22.
- Céréghino, R., T. Boutet, et al. (1997). Abundance, biomass, life history and growth of six Trichoptera species under natural and hydropeaking conditions with hypolimnetic releases in a Pyrenean stream. *Archiv für Hydrobiologie* 138(3): 308-328.
- Céréghino, R., P. Cugny, et al. (2002). Influence of intermittent hydropeaking on the longitudinal zonation patterns of benthic invertebrates in a mountain stream. *International Review of Hydrobiology* 87(1): 47-60.
- Céréghino, R. und P. Lavandier (1998). Influence of hydropeaking on the distribution and larval development of the Plecoptera from a mountain stream. *Regulated Rivers: Research & Management* 14(3): 297-309.
- Céréghino, R. und P. Lavandier (1997). Influence of hydropeaking on the distribution and larval development of the Diptera Simuliidae from a mountain stream. *Comptes Rendus de l'Académie des Sciences - Series 3 - Life Sciences* 320(4): 329-338.
- Céréghino, R. und P. Lavandier (1998). Influence of hypolimnetic hydropeaking on the distribution and population dynamics of Ephemeroptera in a mountain stream. *Freshwater Biology* 40(2): 385-399.
- Céréghino, R., M. Legalle, et al. (2004). Drift and benthic population structure of the mayfly *Rhithrogena semicolorata* (Heptageniidae) under natural and hydropeaking conditions. *Hydrobiologia* 519(1): 127-133.
- Chun, S., S. Cocherell, et al. (2011). Displacement, velocity preference, and substrate use of three native California stream fishes in simulated pulsed flows. *Environmental Biology of Fishes* 90(1): 43-52.
- Clews, E. und S. J. Ormerod (2009). Improving bio-diagnostic monitoring using simple combinations of standard biotic indices. *River Research and Applications* 25(3): 348-361.

- Cluer, B. L. (1995). Cyclic fluvial processes and bias in environmental monitoring, Colorado River in Grand Canyon. *Journal of Geology* 103(4): 411-421.
- Cocchiglia, L., S. Curran, et al. (2012). Evaluation of the effects of fine sediment inputs from stream culverts on brown trout egg survival through field and laboratory assessments. *Inland Waters* 2(1): 47-58.
- Cocherell, S., S. Chun, et al. (2011). A lateral-displacement flume for fish behavior and stranding studies during simulated pulsed flows. *Environmental Biology of Fishes* 91(1).
- Connor, E. J. und D. E. Pflug (2004). Changes in the distribution and density of Pink, Chum, and Chinook Salmon spawning in the Upper Skagit River in response to flow management measures. *North American Journal of Fisheries Management* 24(3): 835-852.
- Cortes, R. M. V., M. T. Ferreira, et al. (2002). Macroinvertebrate community structure in a regulated river segment with different flow conditions. *River Research and Applications* 18: 367-382.
- Crisp, D. T. (2000). *Trout and salmon: ecology, conservation and rehabilitation*, Blackwell Science, Oxford, UK.
- Curry, R. A., J. Gehrels, et al. (1994). Effects of river flow fluctuations on groundwater discharge through brook trout, *Salvelinus fontinalis*, spawning and incubation habitats. *Hydrobiologia* 277(2): 121-134.
- Cushman, R. M. (1985). Review of ecological effects of rapidly varying flows downstream from hydroelectric facilities. *North American Journal of Fisheries Management* 5 (3a): 330-339.
- Dauble, D. D. und D. G. Watson (1997). Status of fall chinook salmon populations in the Mid-Columbia River, 1948-1992. *North American Journal of Fisheries Management* 17(2): 283-300.
- De Jalon, D. G., C. Montes, et al. (1988). Effects of hydroelectric scheme on fluvial ecosystems within the Spanish Pyrenees. *Regulated Rivers: Research & Management* 2(4): 479-491.
- De Jalon, D. G., P. Sanchez, et al. (1994). Downstream effects of a new hydropower impoundment on macrophyte, macroinvertebrate and fish communities. *Regulated Rivers: Research & Management* 9(4): 253-261.
- De Vocht, A. und E. Baras (2003). Effect of hydropeaking on migrations and home range of adult Barbel (*Barbus barbus*) in the river Meuse. *Aquatic telemetry: advances and applications*, Ustica, Italy, FAO/COISPA.
- Dolédéc, S., N. Lamouroux, et al. (2007). Modelling the hydraulic preferences of benthic macroinvertebrates in small European streams. *Freshwater Biology* 52(1): 145-164.
- Dole-Olivier, M. J., P. Marmonier, et al. (1997). Response of invertebrates to lotic disturbance: is the hyporheic zone a patchy refugium? *Freshwater Biology* 37(2): 257-276.
- DRIFT (2011). *Studio degli effetti delle variazioni di portata indotti dalla regimazione idroelettrica lungo il fiume Ticino - Rapporto conclusivo di sintesi*. Dipartimento del Territorio. Cantone Ticino.

- Dunbar, M. J., K. Alfredsen, et al. (2012). Hydraulic-habitat modelling for setting environmental river flow needs for salmonids. *Fisheries Management and Ecology* 19(6): 500-517.
- Dunbar, M. J., M. L. Pedersen, et al. (2010). River discharge and local-scale physical habitat influence macroinvertebrate LIFE scores. *Freshwater Biology* 55(1): 226-242.
- Dunbar, M. J., M. Warren, et al. (2010). Interaction between macroinvertebrates, discharge and physical habitat in upland rivers. *Aquatic Conservation: Marine and Freshwater Ecosystems* 20(S1): S31-S44.
- Eawag (2004). Dem Fischrückgang auf der Spur - Schlussbericht des Projekts Netzwerk Fischrückgang Schweiz (Fischnetz). Eawag.
- EIFAC (1965). Water quality criteria for European freshwater fish. Report on finely divided solids and inland fisheries. European Inland Fisheries Advisory Commission (EIFAC), technical paper No. 1. *International Journal of Air and Water Pollution* 9.
- Eisner, A., C. Young, et al. (2005). MesoCASiMiR – new mapping method and comparison with other current approaches. European Aquatic Modelling Network - Final Meeting. A. Harby, M. Baptist, H. Duelet al. Silkeborg, Denmark.
- Elliott, J. M. (1994). *Quantitative ecology and the brown trout*, Oxford University Press, Oxford, UK.
- Enders, E., M. Stickler, et al. (2008). Variations in distribution and mobility of Atlantic salmon parr during winter in a small, steep river. *Hydrobiologia* 609(1): 37-44.
- Englund, G., B. Malmqvist, et al. (1997). Using predictive models to estimate effects of flow regulation on net-spinning caddis larvae in North Swedish rivers. *Freshwater Biology* 37(3): 687-697.
- Extence, C. A., D. M. Balbi, et al. (1999). River flow indexing using British benthic macroinvertebrates: a framework for setting hydroecological objectives. *Regulated Rivers: Research & Management* 15(6): 545-574.
- Extence, C. A., R. P. Chadd, et al. (2011). The assessment of fine sediment accumulation in rivers using macro-invertebrate community response. *River Research and Applications* (im Druck).
- Feio, M. J. und S. Dolédec (2012). Integration of invertebrate traits into predictive models for indirect assessment of stream functional integrity: A case study in Portugal. *Ecological Indicators* 15(1): 236-247.
- Fette, M. (2005). Tracer studies of river-groundwater interaction under hydropeaking conditions. Eawag. Zürich, ETH. Dissertation.
- Fette, M., C. Weber, et al. (2007). Hydropower production and river rehabilitation: A case study on an alpine river. *Environmental Modeling and Assessment* 12(4): 257-267.
- Finger, D., G. Heinrich, et al. (2012). Projections of future water resources and their uncertainty in a glacierized catchment in the Swiss Alps and the subsequent effects on hydropower production during the 21st century. *Water Resources Research* 48(2).



- Finger, D., M. Schmid, et al. (2006). Effects of upstream hydropower operation on riverine particle transport and turbidity in downstream lakes. *Water Resources Research* 42(8).
- Finger, D., M. Schmid, et al. (2006). Effects of upstream hydropower operation on riverine particle transport and turbidity in downstream lakes. *Water Resources Research* 42(8): W08429.
- Fiss, F. C. und D. W. Young (2003). Management plan for the Center Hill tailwater trout fishery 2004-2009, Tennessee Wildlife Resources Agency.
- Flodmark, L. E. W., T. Forseth, et al. (2006). Behaviour and growth of juvenile brown trout exposed to fluctuating flow. *Ecology of Freshwater Fish* 15(1): 57-65.
- Flodmark, L. E. W., H. A. Urke, et al. (2002). Cortisol and glucose responses in juvenile brown trout subjected to a fluctuating flow regime in an artificial stream. *Journal of Fish Biology* 60(1): 238-248.
- Flodmark, L. E. W., L. A. Vøllestad, et al. (2004). Performance of juvenile brown trout exposed to fluctuating water level and temperature. *Journal of Fish Biology* 65(2): 460-470.
- Forstenlechner, E., M. Hütte, et al. (1997). Ökologische Aspekte der Wasserkraftnutzung im alpinen Raum. VDF.
- Fraleigh, J., B. Marotz, et al. (1989). Mitigation, compensation, and future protection for fish populations affected by hydropower development in the upper Columbia system, Montana, U.S.A. *Regulated Rivers: Research & Management* 3(1): 3-18.
- Franchini, M., E. Ventaglio, et al. (2011). A procedure for evaluating the compatibility of surface water resources with environmental and human requirements. *Water Resources Management* 25(14): 3613-3634.
- Francis, B. A., L. K. Francis, et al. (2010). Water table dynamics and groundwater-surface water interaction during filling and draining of a large fluvial island due to dam-induced river stage fluctuations. *Water Resources Research* 46(7).
- Franklin, P., M. Dunbar, et al. (2008). Flow controls on lowland river macrophytes: A review. *Science of The Total Environment* 400(1-3): 369-378.
- Freeman, M. C., Z. H. Bowen, et al. (2001). Flow and habitat effects on juvenile fish abundance in natural and altered flow regimes. *Ecological Applications* 11(1): 179-190.
- Frey, M. (2003). Temperaturmodellierung - Auswirkungen von Kraftwerken auf das Temperaturregime in Zuflüssen der Rhone. Eawag, Dübendorf. Diplomarbeit.
- Friberg, N., L. Sandin, et al. (2009). Assessing the effects of hydromorphological degradation on macroinvertebrate indicators in rivers: examples, constraints, and outlook. *Integrated Environmental Assessment and Management* 5(1): 86-96.
- Friedl, G. und A. Wüest (2002). Disrupting biogeochemical cycles - Consequences of damming. *Aquatic Sciences - Research Across Boundaries* 64(1): 55-65.

- Frutiger, A. (2004). Ecological impacts of hydroelectric power production on the River Ticino. Part 1: Thermal effects. *Archiv für Hydrobiologie* 159(1): 43-56.
- Frutiger, A. (2004). Ecological impacts of hydroelectric power production on the River Ticino. Part 2: Effects on the larval development of the dominant benthic macroinvertebrate (*Allogamus auricollis*, Trichoptera). *Archiv für Hydrobiologie* 159(1): 57-75.
- Fuller, R. L., C. Griego, et al. (2010). Response of stream macroinvertebrates in flow refugia and high-scour areas to a series of floods: a reciprocal replacement study. *Journal of the North American Benthological Society* 29(2): 750-760.
- García, A., K. Jorde, et al. (2011). Downstream environmental effects of dam operations: Changes in habitat quality for native fish species. *River Research and Applications* 27(3): 312-327.
- Garcia Hernandez, J., F. Jordan, et al. (2009). Ensemble hydrological forecasts for the Upper Rhone River basin. 33rd IAHR Congress: Water Engineering for a Sustainable Environment, Vancouver.
- Garey, A. L. und L. A. Smock (2010). Effects of flow peaking for hydroelectric power generation on the benthic macroinvertebrates of the Roanoke River, NC. ASLO 2010 Summer meeting, Santa Fe, NM, USA.
- Gaschignard, O. und A. Berly (1985). Impact of large discharge fluctuations on the macroinvertebrate populations downstream of a dam. *Regulated streams: advances in ecology*. J. F. Craig and J. B. Kemper. New York, NY, USA, Plenum Press.
- Gayraud, S. und M. Philippe (2001). Does subsurface interstitial space influence general features and morphological traits of the benthic macroinvertebrate community in streams? *Archiv für Hydrobiologie* 151(4): 667-686.
- Geist, D. R., C. J. Murray, et al. (2008). A model of the effects of flow fluctuations on Fall Chinook Salmon spawning habitat availability in the Columbia River. *North American Journal of Fisheries Management* 28(6): 1894-1910.
- Gerecht, K. E., M. B. Cardenas, et al. (2011). Dynamics of hyporheic flow and heat transport across a bed-to-bank continuum in a large regulated river. *Water Resources Research* 47(3).
- Gersich, F. M. und M. A. Brusven (1981). Insect colonization rates in near-shore regions subjected to hydroelectric power peaking flows. *Journal of Freshwater Ecology* 1(2): 231-236.
- Gersich, J. M. (1980). Ecological resilience of benthic insects subjected to power peaking cycles in the Clearwater River, Idaho, University of Idaho, Moscow ID, USA. Dissertation.
- Gibbins, C., D. Vericat, et al. (2007). When is stream invertebrate drift catastrophic? The role of hydraulics and sediment transport in initiating drift during flood events. *Freshwater Biology* 52(12): 2369-2384.
- Gibson, R. J. (2002). The effects of fluvial processes and habitat heterogeneity on distribution, growth and densities of juvenile Atlantic salmon (*Salmo salar* L.), with consequences on abundance of the adult fish. *Ecology of Freshwater Fish* 11(4): 207-222.

- Gislason, J. C. (1985). Aquatic insect abundance in a regulated stream under fluctuating and stable diel flow patterns. *North American Journal of Fisheries Management* 5(1): 39-46.
- Gore, J. A. (1989). Models for predicting benthic macroinvertebrate suitability under regulated flow. *Alternatives in Regulated River Management*. J. A. Gore und G. E. Petts. Boca Raton, Florida, CRC Press: 253-265.
- Gore, J. A., D. J. Crawford, et al. (1998). An analysis of artificial riffles and enhancement of benthic community diversity by physical habitat simulation (PHABSIM) and direct observation. *Regulated Rivers: Research & Management* 14(1): 69-77.
- Gore, J. A. und S. W. Hamilton (1996). Comparison of flow-related habitat evaluations downstream of low-head weirs on small and large fluvial ecosystems. *Regulated Rivers: Research & Management* 12(4-5): 459-469.
- Gore, J. A., J. M. Nestler, et al. (1989). Instream flow predictions and management options for biota affected by peaking-power hydroelectric operations. *Regulated Rivers: Research & Management* 3(1): 35-48.
- Gore, J. A., S. Niemela, et al. (1994). Near-substrate hydraulic conditions under artificial floods from peaking hydropower operation: A preliminary analysis of disturbance intensity and duration. *Regulated Rivers: Research & Management* 9(1): 15-34.
- Gostner, W. und A. J. Schleiss (2011). Der hydromorphologische Index der Diversität. *Wasser Energie Luft* 103(4).
- Gostner, W., D. Theiner, et al. (2011). A holistic approach to reduce negative impacts of Hydropeaking. *Dams and Reservoirs under Changing Challenges*. A. J. Schleiss und R. Boes. London, Taylor & Francis Group.
- Grabowski, T. B. und J. J. Isely (2007). Effects of flow fluctuations on the spawning habitat of a riverine fish. *Southeastern Naturalist* 6(3): 471-478.
- Grand, T. C., S. F. Railsback, et al. (2006). A physical habitat model for predicting the effects of flow fluctuations in nursery habitats of the endangered Colorado pikeminnow (*Ptychocheilus lucius*). *River Research and Applications* 22(10): 1125-1142.
- Graynoth, E. (1984). Effects of hydroelectric development on the fisheries of the Waitaki River, New Zealand. *Second International Symposium on Regulated Streams*. A. Lillehammer und S. J. Saltveit. Oslo, Norway, Universitetsforlaget AS.
- Grelsson, G. (1984). Comparison of vegetation stability on two river banks subject to shortterm water-level regulation, at the river Umeälven in Northern Sweden. *Second International Symposium on Regulated Streams*. Universitetsverlaget AS, Oslo, Norway.
- Grelsson, G. (1985). Vegetational changes on two eroding banks of a short-term regulated river reservoir in northern Sweden. *Nordic Journal of Botany* 5(6): 581-614.
- Guthruf, J. (1996). Populationsdynamik und Habitatwahl der Äsche (*Thymallus thymallus* L.) in drei verschiedenen Gewässern des schweizerischen Mittellandes. ETH Zürich. Dissertation.

- Habersack, H. und H. P. Nachtnebel (1995). Short-term effects of local river restoration on morphology, flow field, substrate and biota. *Regulated Rivers: Research & Management* 10(2-4): 291-301.
- Habersack, H. und H. Piegay (2007). River restoration in the Alps and their surroundings: past experience and future challenges. *Gravel-Bed Rivers VI: From Process Understanding to River Restoration*. H. Habersack, H. Piegay und M. Rinaldi. Elsevier, Amsterdam.
- Halleraker, J. H., K. Alfredsen, et al. (1999). Environmental impacts of hydropeaking - with emphasis on river Nidelva in Trondheim, Norway. *Optimum use of run-of-river hydropower schemes*, Trondheim.
- Halleraker, J. H., S. J. Saltveit, et al. (2003). Factors influencing stranding of wild juvenile brown trout (*Salmo trutta*) during rapid and frequent flow decreases in an artificial stream. *River Research and Applications* 19(5-6): 589-603.
- Halleraker, J. H., H. Sundt, et al. (2007). Application of multiscale environmental flow methodologies as tools for optimized management of a Norwegian regulated national salmon watercourse. *River Research and Applications* 23(5): 493-510.
- Harby, A., K. Alfredsen, et al. (2004). Raske vannstandsendringer i elver - Virkninger på fisk, bunndyr, og begroing. Technischer Report Nr. A5932, SINTEF, Norwegen.
- Harby, A. und J. Halleraker (2001). Ecological impacts of hydro peaking in rivers. *International Journal on Hydropower & Dams* 8(4): 132-135.
- Hart, D. D. und C. M. Finelli (1999). Physical-biological coupling in streams: the pervasive effects of flow on benthic organisms. *Annual Review of Ecology and Systematics* 30: 363-395.
- Hart, D. D. und N. L. Poff (2002). A special section on dam removal and river restoration. *BioScience* 52(8): 653-655.
- Haselmair, A. (2002). Gewässerökologisches Management-Konzept Obere Mur, Ökomorphologische Kartierung & Maßnahmenentwicklung. Institut für Hydrobiologie und Gewässermanagement. Wien, BOKU. Diplomarbeit.
- Hay, C., T. Franti, et al. (2008). Macroinvertebrate drift density in relation to abiotic factors in the Missouri River. *Hydrobiologia* 598(1): 175-189.
- Healy, D. und F. E. Hicks (2007). Experimental study of ice jam thickening under dynamic flow conditions. *Journal of Cold Regions Engineering* 21(3): 72-91.
- Heggenes, J. (1988). Effects of short-term flow fluctuations on displacement of, and habitat use by, Brown Trout in a small stream. *Transactions of the American Fisheries Society* 117(4): 336-344.
- Heggenes, J. (2009). Hydropeaking in Norway: Economy and ecology. Vortrag an der Fachtagung "Schwall und Sunk im Spannungsfeld von Energiewirtschaft und Ökologie" der Wasser-Agenda 21 vom 9. März 2009 in Solothurn.
- Heggenes, J., P. K. Omholt, et al. (2007). Movements by wild brown trout in a boreal river: response to habitat and flow contrasts. *Fisheries Management and Ecology* 14(5): 333-342.

- Helešic, J. und E. Sedlaak (1995). Downstream effect of impoundments on stoneflies: Case study of an epipotamal reach of the Jihlava river, Czech Republic. *Regulated Rivers: Research & Management* 10(1): 39-49.
- Heller, P. (2007). *Méthodologie pour la conception et la gestion des aménagements hydrauliques à buts multiples par une analyse systémique*. Faculté de l'environnement naturel, architectural et construit. Lausanne, École polytechnique fédérale de Lausanne. Dissertation.
- Heller, P., E. F. R. Bollaert, et al. (2010). Comprehensive system analysis of a multipurpose run-of-river power plant with holistic qualitative assessment. *International Journal of River Basin Management* 8(3-4): 295-304.
- Heller, P. und A. Schleiss (2011). Aménagements hydroélectriques fluviaux à buts multiples: résolution du marnage artificiel et conséquences sur les objectifs écologique, énergétique et social. *La Houille Blanche*(6): 34-41.
- Henricson, J. und G. Sjöberg (1984). Stream zoobenthos below two short-term regulated hydro-power dams in Sweden. *Second International Symposium on Regulated Streams*. Universitetsforlaget AS, Oslo, Norway.
- Hoekstra, A. Y. und M. M. Mekonnen (2012). The water footprint of humanity. *Proceedings of the National Academy of Sciences* 109(9): 3232-3237.
- Hoffarth, P., A. Fowler, et al. (2003). 2003 Evaluation of juvenile fall Chinook Salmon stranding on the Hanford Reach of the Columbia River.
- Hunter, M. A. (1992). *Hydropower flow fluctuations and salmonids: a review of the biological effects, mechanical causes, and options for mitigation*. Technical Report Nr. 119. Department of Fisheries, State of Washington, Olympia WA, USA.
- Hvidsten, N. A. (1985). Mortality of pre-smolt Atlantic salmon, *Salmo salar* L., and brown trout, *Salmo trutta* L., caused by fluctuating water levels in the regulated River Nidelva, central Norway. *Journal of Fish Biology* 27(6): 711-718.
- Imhof, B., P. Baumann, et al. (2004). Schwebstoffe in der Rhone von 1904 bis 2003. *Wasser Energie Luft* 96(11/12): 318-320.
- IRKA (2012). *Zukunft Alpenrhein. Quantitative Analyse von Schwall/Sunk-Ganglinien für unterschiedliche Anforderungsprofile*. IRKA - Projektgruppe Gewässer- und Fischökologie.
- Irvine, J. R. (1985). Effects of successive flow perturbations on stream invertebrates. *Canadian Journal of Fisheries and Aquatic Sciences* 42(12): 1922-1927.
- Irvine, J. R. und P. R. Henriques (1984). A preliminary investigation on effects of fluctuating flows on invertebrates of the Hawea River, a large regulated river in New Zealand. *New Zealand Journal of Marine and Freshwater Research* 18(3): 283-290.
- Irvine, R., T. Oussoren, et al. (2009). The effects of flow reduction rates on fish stranding in British Columbia, Canada. *River Research and Applications* 25(4): 405-415.

- Irwin, E. R. und M. C. Freeman (2002). Proposal for adaptive management to conserve biotic integrity in a regulated segment of the Tallapoosa River, Alabama, U.S.A. *Conservation Biology* 16(5): 1212-1222.
- Jackson, H. M., C. N. Gibbins, et al. (2007). Role of discharge and temperature variation in determining invertebrate community structure in a regulated river. *River Research and Applications* 23(6): 651-669.
- Jacobson, R. A. (2008). Editorial: applications of MesoHABSIM using fish community targets. *River Research and Applications* 24(4): 434-438.
- Jensen, F. und C. F. Jensen (1984). Response of the benthic fauna to short-term lowerings of the water level in a lowland stream in Denmark. *Second International Symposium on Regulated Streams*. Universitetsforlaget AS, Oslo, Norway.
- Jones, N. E. (2012). Spatial patterns of benthic invertebrates in regulated and natural rivers. *River Research and Applications* (im Druck).
- Jones, J. I., J. F. Murphy, et al. (2012). The impact of fine sediment on macro-invertebrates. *River Research and Applications* 28(8): 1055-1071.
- Jordan, F. (2007). *Modèle de prévisions et de gestion des crues: optimisation des opérations des aménagements hydroélectriques à accumulation pour la réduction des débits de crue*. Faculté de l'environnement naturel, architectural et construit. Lausanne, École Polytechnique Fédérale. Dissertation.
- Jordan, F., J. L. Boillat, et al. (2006). *Prévision et gestion des crues par opérations préventives sur les retenues alpines*. Deuxième Congrès Des Grands Barrages. Barcelona.
- Jordan, F., J. L. Boillat, et al. (2007). Real-time decision-making during floods: application to the upper Rhône River in Switzerland. 32nd Congress of IAHR. Venice, Italy.
- Jordan, F., J. L. Boillat, et al. (2007). Aide à la décision en situation de crue: le cas du Rhône en Valais. *Forum Wissen*.
- Jorde, K., M. Burke, et al. (2008). Reservoir operations, physical processes, and ecosystem losses. *Gravel-Bed Rivers VI: From Process Understanding to River Restoration*. H. Habersack, H. Piégay and M. Rinaldi. Elsevier, Amsterdam. 11: 607-636.
- Jourdonnais, J. H. und F. R. Hauer (1993). Electrical frequency control and its effects on flow and river ecology in the lower Flathead River, Montana. *Rivers* 4(2): 132-145.
- Jungwirth, M., S. Muhar, et al. (2002). Re-establishing and assessing ecological integrity in riverine landscapes. *Freshwater Biology* 47(4): 867-887.
- Kampa, E. und W. Hansen (2004). *Heavily Modified Waters in Europe: Synthesis of 34 Case Studies in Europe*. Springer, Berlin.
- Katzman, S., J. Greathouse, et al. (2010). Water velocity preferences of Coho Salmon during the parr-smolt transformation. *Environmental Biology of Fishes* 88(1): 79-84.

- Kinsolving, A. D. und M. B. Bain (1993). Fish assemblage recovery along a riverine disturbance gradient. *Ecological Applications* 3(3): 531-544.
- KLL (2008). Bericht zur Umweltverträglichkeitsprüfung 2. Stufe, Bestehende Anlagen - Hauptbericht.
- Europäische Kommission (2000). Richtlinie 2000/60/EG des Europäischen Parlamentes und des Rates vom 23. Oktober 2000 zur Schaffung eines Ordnungsrahmens für Maßnahmen der Gemeinschaft im Bereich der Wasserpolitik.
- Kondolf, G. M. (1995). Five elements for effective evaluation of stream restoration. *Restoration Ecology* 3(2): 133-136.
- Kopecki, I., A. Caballero, et al. (2012). Physikalische Habitatsmodellierung für die Bewertung ökologischer Auswirkungen des Schwallbetriebs. *WasserWirtschaft*(1-2): 52-58.
- Korman, J. und S. E. Campana (2009). Effects of hydropeaking on nearshore habitat use and growth of age-0 Rainbow Trout in a large regulated river. *Transactions of the American Fisheries Society* 138(1): 76-87.
- Korman, J., C. Walters, et al. (2011). Effects of flow fluctuations on habitat use and survival of age-0 rainbow trout (*Oncorhynchus mykiss*) in a large, regulated river. *Canadian Journal of Fisheries and Aquatic Sciences* 68(6): 1097-1109.
- Kotchen, M. J., M. R. Moore, et al. (2006). Environmental constraints on hydropower: an ex post benefit-cost analysis of dam relicensing in Michigan. *Land Economics* 82(3): 384-403.
- Krause, C. W., T. J. Newcomb, et al. (2005). Thermal habitat assessment of alternative flow scenarios in a tailwater fishery. *River Research and Applications* 21(6): 581-593.
- Kühne, A. (1985). Schwall- und Sunkerscheinungen in einer Flusstauhaltung. *Wasser Energie Luft* 76(10): 213-219.
- Künzli, F. (2005). Fischökologische Untersuchungen in vier schwallbeeinflussten Schweizer Fließgewässern. Biology. Zürich, ETH Zürich. Masterarbeit.
- Künzli, F. (2009). Schwall/Sunk-Problematik in Schweizer Fließgewässern, VDM Verlag, Saarbrücken, Deutschland.
- Lagarrigue, T., R. Céréghino, et al. (2002). Diel and seasonal variations in brown trout (*Salmo trutta*) feeding patterns and relationship with invertebrate drift under natural and hydropeaking conditions in a mountain stream. *Aquatic Living Resources* 15(2): 129-137.
- Lagobianco (2011). Konzessionsgenehmigungsgesuch für das Projekt Lagobianco. Informationsbroschüre Lagobianco AG, Poschiavo.
- Lamouroux, N. und H. Capra (2002). Simple predictions of instream habitat model outputs for target fish populations. *Freshwater Biology* 47(8): 1543-1556.
- Langdon, R. und S. Fiske (1987). The effects of the Taftsville hydroelectric facility on downstream fish and macroinvertebrate populations. Vermont Agency of Natural Resources. Montpelier, VT, USA.

- Lauters, F. (1995). Impacts sur l'écosystème aquatique de la gestion par éclusées des ouvrages hydroélectriques. Toulouse, Université Paul Sabatier. Dissertation.
- Lauters, F. und P. Lavandier (1996). Influence of hydropeaking on invertebrates and their relationship with fish feeding habits in a Pyrenean river. *Regulated Rivers: Research & Management* 12: 563-573.
- Layzer, J. B., M. E. Gordon, et al. (1993). Mussels: The forgotten fauna of regulated rivers. A case study of the Caney Fork River. *Regulated Rivers: Research & Management* 8(1-2): 63-71.
- Layzer, J. B., T. J. Nehus, et al. (1989). Seasonal variation in the composition of the drift below a peaking hydroelectric project. *Regulated Rivers: Research & Management* 3(1): 29-34.
- Layzer, J. B. und E. M. Scott (2006). Restoration and colonization of freshwater mussels and fish in a southeastern United States tailwater. *River Research and Applications* 22(4): 475-491.
- Liebig, H., R. Céréghino, et al. (1999). Impact of hydropeaking on the abundance of juvenile brown trout in a Pyrenean stream. *Archiv für Hydrobiologie* 144(4): 439-454.
- Liebig, H., P. Lim, et al. (1998). Influence of basic flow and hydropeaking duration on the drift of post-emergent fry of brown trout : experiments on a semi-natural stream. *Bull. Fr. Pêche Piscic.* (350-351): 337-347.
- Liebig, H., S. Mastrorillo, et al. (2001). Microhabitat use by 0+ brown trout (*Salmo trutta* L.) in a mountain stream affected by hydropeaking operations (Pyrénées, Southeast France). *Archiv für Hydrobiologie* 12(2-4): 203-218.
- Limnex (1994). Chemischer Zustand des Alpenrheins. Bericht über online-Messungen im Winter 1994. Bericht z. H. Kantonale Ämter für Umweltschutz St. Gallen und Graubünden.
- Limnex (2000). Auswirkungen des Schwallbetriebs des Kraftwerks Kubel auf die Wassertiere der Sitter. Bericht z. H. Jagd- und Fischereiverwaltung des Kantons St. Gallen.
- Limnex (2004). Auswirkungen des Schwallbetriebs auf das Ökosystem der Fließgewässer: Grundlagen zur Beurteilung. Bericht z. H. des WWF Schweiz.
- Limnex (2006). Schwallversuche in der Linth. Ökologische Auswirkungen von schwalldämpfenden Massnahmen. Bericht z. H. Amt für Umweltschutz, Kanton Glarus.
- Limnex (2012). Schwall-Sunk Bewertung der KWO-Zentralen in Innertkirchen. Bericht z. H. KWO AG.
- Lloyd, D. S., J. P. Koenings, et al. (1987). Effects of turbidity in fresh waters of Alaska. *North American Journal of Fisheries Management* 7(1): 18-33.
- Locher, H. (2004). Environmental issues and management for hydropower peaking operations. UN Symposium on Hydropower and Sustainable Development, Beijing.
- Logan, P. und M. Furse (2002). Preparing for the European Water Framework Directive — making the links between habitat and aquatic biota. *Aquatic Conservation: Marine and Freshwater Ecosystems* 12(4): 425-437.



- Lukas, J. A. und D. J. Orth (1995). Factors affecting nesting success of Smallmouth Bass in a regulated Virginia stream. *Transactions of the American Fisheries Society* 124(5): 726-735.
- Lyons, J., R. R. Piette, et al. (2001). Development, validation, and application of a fish-based index of biotic integrity for Wisconsin's large warmwater rivers. *Transactions of the American Fisheries Society* 130(6): 1077-1094.
- Magilligan, F. J. und K. H. Nislow (2005). Changes in hydrologic regime by dams. *Geomorphology* 71(1-2): 61-78.
- Mäki-Petäys, A., T. Muotka, et al. (1999). Densities of juvenile brown trout (*Salmo trutta*) in two subarctic rivers: assessing the predictive capability of habitat preference indices. *Canadian Journal of Fisheries and Aquatic Sciences* 56(8): 1420-1427.
- Malcolm, I. A., C. A. Middlemas, et al. (2010). Hyporheic zone processes in a canalised agricultural stream: implications for salmonid embryo survival. *Fundamental and Applied Limnology / Archiv für Hydrobiologie* 176(4): 319-336.
- Mallet, J. P., N. Lamouroux, et al. (2000). Habitat preferences of European grayling in a medium size stream, the Ain river, France. *Journal of Fish Biology* 56(6): 1312-1326.
- Markwith, S. und K. Parker (2007). Conservation of *Hymenocallis coronaria* genetic diversity in the presence of disturbance and a disjunct distribution. *Conservation Genetics* 8(4): 949-963.
- Marti, J. (2008). Neukonzessionierung der Kraftwerke Linth-Limmern in Linthal aus der Sicht der Behörden. *Wasser Energie Luft* 100(4): 295-300.
- Marty, J., K. Smokorowski, et al. (2009). The influence of fluctuating ramping rates on the food web of boreal rivers. *River Research and Applications* 25(8): 962-974.
- Matter, W., P. Hudson, et al. (1983). Movement, transport, and scour of particulate organic matter and aquatic invertebrates downstream from a peaking hydropower project, Army Engineer Waterways Experiment Station, Vicksburg, MS (USA).
- Meier, W., M. Frey, et al. (2004). Wassertemperaturen und Wärmehaushalt der Rhone und ihrer Seitenbäche. Schlussbericht von SP I-2 des Rhone-Thur Projektes. EAWAG, Kastanienbaum.
- Meier, W. und A. Wüest (2004). Wie verändert die hydroelektrische Nutzung die Wassertemperatur der Rhone? *Wasser Energie Luft* 96(11/12).
- Meile, T. (2008). Influence of macro-roughness of walls on steady and unsteady flow in a channel, EPFL, Lausanne. Dissertation.
- Meile, T., J. L. Boillat, et al. (2011). Hydropeaking indicators for characterization of the Upper-Rhone River in Switzerland. *Aquatic Sciences - Research Across Boundaries* 73(1): 171-182.
- Meile, T., M. Fette, et al. (2005). Synthesebericht Schwall/Sunk. Publikation des Rhone-Thur Projekts. Eawag, Kastanienbaum.
- Meissner, K., T. Muotka, et al. (2002). Drift responses of larval blackflies and their invertebrate predators to short-term flow regulation. *Archiv für Hydrobiologie* 154(4): 529-542.

- Mekonnen, M. M. und A. Y. Hoekstra (2012). The blue water footprint of electricity from hydropower. *Hydrology and Earth System Sciences* 16: 179-187.
- Mendez, R. (2007). Laichwanderung der Seeforelle im Alpenrhein, Eawag, Kastanienbaum. Diplomarbeit.
- Mérigoux, S. und S. Dolédec (2004). Hydraulic requirements of stream communities: a case study on invertebrates. *Freshwater Biology* 49(5): 600-613.
- Minor, H.-E. und G. Möller (2007). Schwall und Sunk, technisch-ökonomische Situation in den grösseren Flussgebieten der Schweiz. *Wasser Energie Luft* 99(1).
- Moog, O. (1993). Quantification of daily peak hydropower effects on aquatic fauna and management to minimize environmental impacts. *Regulated Rivers: Research & Management* 8(1-2): 5-14.
- Moog, O., M. Jungwirth, et al. (1993). Berücksichtigung gewässerökologischer Gesichtspunkte bei der Wasserkraftnutzung durch Ausleitungskraftwerke. *Österreichische Wasserwirtschaft* 45(7/8): 197-210.
- Morgan, R. P., R. E. Jacobsen, et al. (1991). Effects of flow alteration on benthic macroinvertebrate communities below the Brighton Hydroelectric Dam. *Journal of Freshwater Ecology* 6(4): 419-429.
- Morisson, H. A. und K. Smokorowski (2000). The applicability of various frameworks and models for assessing the effects of hydropeaking on the productivity of aquatic ecosystems. Canadian Technical Report of Fisheries and Aquatic Sciences.
- Mouton, A. M., M. Schneider, et al. (2007). Fish habitat modelling as a tool for river management. *Ecological Engineering* 29(3): 305-315.
- Muhar, S., M. Jungwirth, et al. (2008). Restoring riverine landscapes at the Drau River: successes and deficits in the context of ecological integrity. *Gravel-Bed Rivers VI: From Process Understanding to River Restoration*. H. Habersack, H. Piégay und M. Rinaldi. Elsevier.
- Muhar, S., G. Pohl, et al. (2011). Integratives Flussgebietsmanagement: Abstimmung wasserwirtschaftlicher, gewässerökologischer und naturschutzfachlicher Anforderungen auf Basis verschiedener EU-Richtlinien (Beispiel Steirische Enns). *Österreichische Wasser- und Abfallwirtschaft* 63(9-10): 167-173.
- Muhar, S., S. Schmutz, et al. (1995). River restoration concepts — goals and perspectives. *Hydrobiologia* 303(1): 183-194.
- Muhlfeld, C. C., L. Jones, et al. (2012). Assessing the impacts of river regulation on native Bull Trout (*Salvelinus confluentus*) and Westslope Cutthroat Trout (*Oncorhynchus clarkii lewisi*) habitats in the Upper Flathead River, Montana, USA. *River Research and Applications* 28(7): 940-959.
- Mundahl, N. D. und K. J. Kraft (1988). Abundance and growth of three species of aquatic insects exposed to surface-release hydropower flows. *Journal of the North American Benthological Society* 7(2): 100-108.

- Munn, M. D. und M. A. Brusven (1987). Discontinuity of trichopteran (caddisfly) communities in regulated waters of the clearwater river, Idaho, U.S.A. *Regulated Rivers: Research & Management* 1(1): 61-69.
- Munn, M. D. und M. A. Brusven (1991). Benthic macroinvertebrate communities in nonregulated and regulated waters of the clearwater river, Idaho, U.S.A. *Regulated Rivers: Research & Management* 6(1): 1-11.
- Murchie, K. J., K. P. E. Hair, et al. (2008). Fish response to modified flow regimes in regulated rivers: research methods, effects and opportunities. *River Research and Applications* 24(2): 197-217.
- Nackler, K. und G. Heigerth (2007). Optimierung von Wasserkraftwerken - die Einbindung einer neuen Pumpspeichieranlage in eine bestehende Kraftwerksgruppe mittels innovativer Ausbautechnik - Das Projekt Feldsee. *Österreichische Wasser- und Abfallwirtschaft* 59(5): 55-60.
- Nagrodski, A., G. D. Raby, et al. (2012). Fish stranding in freshwater systems: Sources, consequences, and mitigation. *Journal of Environmental Management* 103(0): 133-141.
- Naiman, R. J., J. J. Latterell, et al. (2008). Flow variability and the biophysical vitality of river systems. *Comptes Rendus de l'Académie des Sciences - Geoscience* 340: 629 - 643.
- Nelson, F. A. (1986). Effect of flow fluctuations on Brown Trout in the Beaverhead River, Montana. *North American Journal of Fisheries Management* 6(4): 551-559.
- Nilsson, C., A. Ekblad, et al. (1991). Long-term effects of river regulation on river margin vegetation. *Journal of Applied Ecology* 28(3): 963-987.
- Nugent, J., P. Hoffarth, et al. (2002). 2002 Evaluation of juvenile fall Chinook Salmon stranding on the Hanford Reach of the Columbia River.
- Nugent, J., T. Newsome, et al. (2002). 1999 Evaluation of juvenile fall Chinook Salmon stranding on the Hanford Reach of the Columbia River.
- Nugent, J., T. Newsome, et al. (2002). 2001 Evaluation of juvenile fall Chinook Salmon stranding on the Hanford Reach of the Columbia River.
- Nugent, J., T. Newsome, et al. (2002). 2000 Evaluation of juvenile fall Chinook Salmon stranding on the Hanford Reach of the Columbia River.
- Nugent, J., T. Newsome, et al. (2001). 1998 Evaluation of juvenile fall Chinook Salmon stranding on the Hanford Reach of the Columbia River.
- KWO (2011). Aufwertung der Kraftwerke Handeck 2 und Innertkirchen 1: Das Wasser effizienter nutzen. Informationsbroschüre. KWO AG, Innertkirchen.
- Oppeliger, J. (2004). Schwall/Sunk-Betrieb im Oberlauf der Aare. *Laboratoire de Constructions Hydrauliques*. EPFL, Lausanne. Nachdiplomarbeit.
- Ovidio, M., H. Capra, et al. (2008). Regulated discharge produces substantial demographic changes on four typical fish species of a small salmonid stream. *Hydrobiologia* 609(1): 59-70.

- Ovidio, M., F. Paquer, et al. (2004). Effects of a micro hydroelectric power plant upon population abundance, mobility and reproduction behaviour of European grayling *T. thymallus* and brown trout *S. trutta* in a salmonid river. International Symposium on Ecohydraulics, International Association of Hydro-environment Engineering and Research.
- Paetzold, A., C. Yoshimura, et al. (2008). Riparian arthropod responses to flow regulation and river channelization. *Journal of Applied Ecology* 45(3): 894-903.
- Parasiewicz, P. (2008). Application of MesoHABSIM and target fish community approaches to restoration of the Quinebaug River, Connecticut and Massachusetts, USA. *River Research and Applications* 24(4): 459-471.
- Parasiewicz, P. (2008). Habitat time series analysis to define flow augmentation strategy for the Quinebaug River, Connecticut and Massachusetts, USA. *River Research and Applications* 24(4): 439-452.
- Parasiewicz, P., S. Schmutz, et al. (1998). The effect of managed hydropower peaking on the physical habitat, benthos and fish fauna in the River Bregenzerach in Austria. *Fisheries Management and Ecology* 5(5): 403-417.
- Parasiewicz, P. und J. D. Walker (2007). Comparison of MesoHABSIM with two microhabitat models (PHABSIM and HARPHA). *River Research and Applications* 23(8): 904-923.
- Patterson, R. J. und K. E. Smokorowski (2011). Assessing the benefit of flow constraints on the drifting invertebrate community of a regulated river. *River Research and Applications* 27(1): 99-112.
- Peduzzi, P., F. Aspetsberger, et al. (2008). Dissolved organic matter (DOM) and bacterial growth in floodplains of the Danube River under varying hydrological connectivity. *Fundamental and Applied Limnology / Archiv für Hydrobiologie* 171(1): 49-61.
- Pellaud, M. (2007). Ecological response of a multi-purpose river development project using macro-invertebrates richness and fish habitat value. *Faculté de l'environnement naturel, architectural et construit. EPFL, Lausanne. Dissertation.*
- Perry, S. A. und W. B. Perry (1986). Effects of experimental flow regulation on invertebrate drift and stranding in the Flathead and Kootenai Rivers, Montana, USA. *Hydrobiologia* 134(2): 171-182.
- Pert, E. J. und D. C. Erman (1994). Habitat use by adult Rainbow Trout under moderate artificial fluctuations in flow. *Transactions of the American Fisheries Society* 123(6): 913-923.
- Pfaundler, M., C. Dübendorfer, et al. (2011). Methoden zur Untersuchung und Beurteilung der Fließgewässer. *Hydrologie - Abflussregime Stufe F (flächendeckend). Bundesamt für Umwelt, Bern. Umwelt-Vollzug Nr. 1107.*
- Pfaundler, M. und M. Keusen (2007). Charakterisierung und Veränderungen von Schwall-Sunk-Phänomenen in der Schweiz: eine hydrologische Datenanalyse. *Wasser Energie Luft* 99(1).
- Pfaundler, M., R. Weingartner, et al. (2006). Versteckt hinter Mittelwerten - die Variabilität des Abflussregimes. *Hydrologie und Wasserbewirtschaftung* 50(3): 116-123.

- Poff, N. L., J. D. Allan, et al. (1997). The natural flow regime. *BioScience* 47(11): 769-784.
- Poff, N. L., B. D. Richter, et al. (2010). The ecological limits of hydrologic alteration (ELOHA): a new framework for developing regional environmental flow standards. *Freshwater Biology* 55(1): 147-170.
- Poff, N. L. und J. V. Ward (1989). Implications of streamflow variability and predictability for lotic community structure: a regional analysis of streamflow patterns. *Canadian Journal of Fisheries and Aquatic Sciences* 46(10): 1805-1818.
- Poff, N. L. und J. V. Ward (1991). Drift responses of benthic invertebrates to experimental streamflow variation in a hydrologically stable stream. *Canadian Journal of Fisheries and Aquatic Sciences* 48(10): 1926-1936.
- Poff, N. L. und J. K. H. Zimmerman (2010). Ecological responses to altered flow regimes: a literature review to inform the science and management of environmental flows. *Freshwater Biology* 55(1): 194-205.
- Portmann, M., P. Baumann, et al. (2004). Schwebstoffhaushalt und Trübung der Rhone. Publikation des Rhone-Thur Projektes. EAWAG, Kastanienbaum.
- Quinn, J. M., A. B. Cooper, et al. (1997). Land use effects on habitat, water quality, periphyton, and benthic invertebrates in Waikato, New Zealand, hill-country streams. *New Zealand Journal of Marine and Freshwater Research* 31(5): 579-597.
- Quinn, J. M., A. B. Cooper, et al. (1997). Shade effects on stream periphyton and invertebrates: An experiment in streamside channels. *New Zealand Journal of Marine and Freshwater Research* 31(5): 665-683.
- Ranta, E. und P. Sevola (1984). Effects of short-term regulation on fish stocks in the rivers Kyrönjoki and Lapuanjoki, Finland. *Second International Symposium on Regulated Streams*. Oslo, Norwegen.
- Reichert, P., M. Borsuk, et al. (2007). Concepts of decision support for river rehabilitation. *Environmental Modelling & Software* 22(2): 188-201.
- Renöfält, B. M., R. Jansson, et al. (2010). Effects of hydropower generation and opportunities for environmental flow management in Swedish riverine ecosystems. *Freshwater Biology* 55(1): 49-67.
- Resh, V. H., A. V. Brown, et al. (1988). The role of disturbance in stream ecology. *Journal of the North American Benthological Society* 7(4): 433-455.
- Reyjol, Y., P. Lim, et al. (2001). Modelling of microhabitat used by fish in natural and regulated flows in the river Garonne (France). *Ecological Modelling* 146(1-3): 131-142.
- Ribi, J.-M. (2012). Etude expérimentale de refuges à poissons aménagés dans les berges de rivières soumises aux éclusées hydroélectriques, EPFL, Lausanne. Dissertation.
- Ribi, J.-M., J.-L. Boillat, et al. (2010). Fish behaviour during hydropeaking in a channel equipped with a lateral shelter. *8th International Symposium on Ecohydraulics*. Seoul, Korea.

- Ribi, J.-M., K. Steffen, et al. (2009). Influence of geometry of fish shelters in river banks on their attractiveness for fishes during hydropeaking. 33rd IAHR Congress: Water Engineering for a Sustainable Environment.
- Richter, B. D., J. V. Baumgartner, et al. (1998). A spatial assessment of hydrologic alteration within a river network. *Regulated Rivers: Research & Management* 14(4): 329-340.
- Richter, B. D., J. V. Baumgartner, et al. (1996). A method for assessing hydrologic alteration within ecosystems. *Conservation Biology* 10(4): 1163-1174.
- Richter, B. D., J. V. Baumgartner, et al. (1997). How much water does a river need? *Freshwater Biology* 37: 231-249.
- Richter, B. D. und G. A. Thomas (2007). Restoring environmental flows by modifying dam operations. *Ecology and Society* 12(1).
- Robertson, M. J., C. J. Pennell, et al. (2004). Effect of increased flow on the behaviour of Atlantic salmon parr in winter. *Journal of Fish Biology* 65(4): 1070-1079.
- Ruetz, C. R. und C. A. Jennings (2000). Swimming performance of larval Robust Redhorse *Moxostoma robustum* and low-velocity habitat modeling in the Oconee River, Georgia. *Transactions of the American Fisheries Society* 129(2): 398-407.
- Sabatón, C., Y. Souchon, et al. (2004). The Guaranteed Flow Working Group: A French evaluation of microhabitat component of IFIM based on habitat and brown trout population monitoring. *Hydroécological Applications* 14: 245-270.
- SAH (2002). Kolmation – Methoden zur Erkennung und Bewertung. Eawag, Dübendorf.
- SAH (2004). Geschiebestudie Linth. Bericht z. H. Baudirektion des Kantons Glarus und der Linthverwaltung, Glarus.
- Saltveit, S. J., J. H. Halleraker, et al. (2001). Field experiments on stranding in juvenile atlantic salmon (*Salmo salar*) and brown trout (*Salmo trutta*) during rapid flow decreases caused by hydropeaking. *Regulated Rivers: Research & Management* 17(4-5): 609-622.
- Sauterleute, J., M. Noack, et al. (2010). Modelling stranding risk of fish in a norwegian regulated river with fluctuating flow. 8th International Symposium on Ecohydraulics. Soeul, Korea.
- Sawyer, H. A., B. M. Cardenas, et al. (2009). Impact of dam operations on hyporheic exchange in the riparian zone of a regulated river. *Hydrological Processes* 23(15): 2129-2137.
- Schaepli, B., B. Hingray, et al. (2005). A conceptual glacio-hydrological model for high mountainous catchments. *Hydrology and Earth System Sciences* 9(1/2): 95-109.
- Scheidegger, K. J. und M. B. Bain (1995). Larval fish in natural and regulated rivers: assemblage composition and microhabitat use. *Copeia*: 125-135.
- Schmid, M., D. F. McGinnis, et al. (2008). Simulation der Auswirkungen eines allfälligen Pumpspeicherbetriebs auf Schichtung und Trübung im Lago di Posciavo und im Lago Bianco. Eawag, Kastanienbaum.

- Schmid, M. und A. Wüest (2009). Simulation der Auswirkungen eines allfälligen Pumpspeicherbetriebs auf Schichtung und Trübung im Lago di Posciavo und im Lago Bianco: Ergänzende Szenarien. Eawag, Kastanienbaum.
- Schmocker, L., G. Möller, et al. (2007). Machbarkeit und Kosten der Schwallreduktion in der Schweiz. VAW Bericht Nr. 4250.
- Schmutz, S., G. Egger, et al. (2003). Integrative Bewertung des ökologischen Zustandes und der nachhaltigen Entwicklung von Flusslandschaften am Beispiel der Möll. Österreichische Wasser- und Abfallwirtschaft 55(7/8): 145-153.
- Schmutz, S., R. Schinegger, et al. (2010). Ökologischer Zustand der Fließgewässer Österreichs – Perspektiven bei unterschiedlichen Nutzungsszenarien der Wasserkraft. Österreichische Wasser- und Abfallwirtschaft 62(7): 162-167.
- Schmutz, S., C. Wiesner, et al. (2011). Auswirkungen des Wasserkraftausbaues auf die Fischfauna der steirischen Mur. Österreichische Wasser- und Abfallwirtschaft 63(9-10): 190-195.
- Schneider, M. und M. Noack (2009). Untersuchung der Gefährdung von Jungfischen durch Sunkereignisse mit Hilfe eines Habitatsimulationsmodells. Wasser Energie Luft 101(2): 115-120.
- Schnell, J. (2005). Gewässerökologische Auswirkungen des Schwellbetriebs am Lech im Bereich des Naturschutzgebietes Litzauer Schleife. Berlin, Humboldt Universität. Diplomarbeit.
- Schuwirth, N., M. Kühni, et al. (2008). A mechanistic model of benthos community dynamics in the River Sihl, Switzerland. Freshwater Biology 53(7): 1372-1392.
- Schuwirth, N. und P. Reichert (2012). Das Vorkommen von Lebewesen vorhersagen. Eawag News 72.
- Schuwirth, N. und P. Reichert (im Druck). Bridging the gap between theoretical ecology and real ecosystems: modeling invertebrate community composition in streams. Ecology.
- Schweizer, S., M. Meyer, et al. (2010). Zahlreiche gewässerökologische Untersuchungen im Oberhasli: wichtige Unterstützung des partizitiven Begleitprozesses von KWOplus. Wasser Energie Luft 102(4).
- Schweizer, S., M. Meyer, et al. (2012). Gewässerökologische Aufwertungen im Rahmen der Restwassersanierung und der Ausbauprojekte an der Grimsel. Wasser Energie Luft 104(1): 30-39.
- Schweizer, S., J. Neuner, et al. (2009). Bewertung von Schwall/Sunk - Herleitung eines ökologisch abgestützten Bewertungskonzepts. Wasser Energie Luft 101(3).
- Schweizer, S., J. Neuner, et al. (2008). Ein intelligent gesteuertes Beruhigungsbecken zur Reduktion von künstlichen Pegelschwankungen in der Hasliaare. Wasser Energie Luft 100(3).
- Schweizer, S., H. Zeh Weissmann, et al. (2012). Der Begleitgruppenprozess zu den Ausbauprojekten und zur Restwassersanierung im Oberhasli. Wasser Energie Luft 104(1): 11-17.

- Schweizer, S., H. Zeh Weissmann, et al. (2012). Ökologische Bilanzierungsmethode für Schutz- und Nutzungsplanung im Oberhasli. *Wasser Energie Luft* 104(1): 18-29.
- Scruton, D., C. Pennell, et al. (2008). A synopsis of 'hydropeaking' studies on the response of juvenile Atlantic salmon to experimental flow alteration. *Hydrobiologia* 609(1): 263-275.
- Scruton, D. A., L. M. N. Ollerhead, et al. (2003). The behavioural response of juvenile Atlantic salmon (*Salmo salar*) and brook trout (*Salvelinus fontinalis*) to experimental hydropeaking on a Newfoundland (Canada) river. *River Research and Applications* 19(5-6): 577-587.
- Scruton, D. A., C. J. Pennell, et al. (2005). Seasonal response of juvenile atlantic salmon to experimental hydropeaking power generation in Newfoundland, Canada. *North American Journal of Fisheries Management* 25(3): 964-974.
- Scullion, J. und A. Sinton (1983). Effects of artificial freshets on substratum composition, benthic invertebrate fauna and invertebrate drift in two impounded rivers in mid-Wales. *Hydrobiologia* 107(3): 261-269.
- Sear, D. A. (1995). Morphological and sedimentological changes in a gravel-bed river following 12 years of flow regulation for hydropower. *Regulated Rivers: Research & Management* 10(2-4): 247-264.
- Shaw, E. A. und J. S. Richardson (2001). Direct and indirect effects of sediment pulse duration on stream invertebrate assemblages and rainbow trout (*Oncorhynchus mykiss*) growth and survival. *Canadian Journal of Fisheries and Aquatic Sciences* 58(11): 2213-2221.
- Shen, Y. und P. Diplas (2010). Modeling unsteady flow characteristics of hydropeaking operations and their implications on fish habitat. *Journal of Hydraulic Engineering* 136(12): 1053-1066.
- Shirvell, C. S. (1994). Effect of changes in streamflow on the microhabitat use and movements of sympatric juvenile Coho Salmon (*Oncorhynchus kisutch*) and Chinook Salmon (*O. tshawytscha*) in a natural stream. *Canadian Journal of Fisheries and Aquatic Sciences* 51(7): 1644-1652.
- Smokorowski, K., R. A. Metcalfe, et al. (2009). Flow management: studying ramping rate restrictions. *Hydro Review* 28: 68-88.
- Smokorowski, K. E., R. A. Metcalfe, et al. (2011). Ecosystem level assessment of environmentally based flow restrictions for maintaining ecosystem integrity: a comparison of a modified peaking versus unaltered river. *Ecohydrology* 4(6): 791-806.
- Stanford, J. A. und R. H. F. (1992). Mitigating the impacts of stream and lake regulation in the flathead river catchment, Montana, USA: An ecosystem perspective. *Aquatic Conservation: Marine and Freshwater Ecosystems* 2(1): 35-63.
- Steele, R. J. und K. E. Smokorowski (2000). Review of literature related to the downstream ecological effects of hydroelectric power generation. *Canadian Technical Report of Fisheries and Aquatic Sciences*.
- Sternberg, R. (2010). Hydropower's future, the environment, and global electricity systems. *Renewable and Sustainable Energy Reviews* 14(2): 713-723.



- Stickler, M., K. Alfredsen, et al. (2007). Mid-winter activity and movement of Atlantic salmon parr during ice formation events in a Norwegian regulated river. *Developments in Fish Telemetry* 195: 81-89.
- Stober, Q. J., S. C. Crumley, et al. (1981). The effects of hydroelectric discharge fluctuation on salmon and steelhead in the Skagit River, Washington. University of Washington Fisheries Research Institute.
- Studley, T. K., J. E. Baldridge, et al. (1996). Predicting fish population response to instream flows. *Hydro Review* 15(6).
- Szczerkowska-Majchrzak, E., M. Grzybkowska, et al. (2010). Effect of flow fluctuations on patch dynamics and chironomid distribution in a medium-sized lowland river. *Journal of Freshwater Ecology* 25(3): 437-448.
- Tappeiner, G., U. Tappeiner, et al. (2007). Integrating disciplinary research into an interdisciplinary framework: A case study in sustainability research. *Environmental Modeling and Assessment* 12(4): 253-256.
- Terrier, S., F. Jordan, et al. (2011). Optimized and adapted hydropower management considering glacier shrinkage scenarios in the Swiss Alps. *Dams and Reservoirs under Changing Challenges*. R. M. Boes and A. J. Schleiss. London, Taylor & Francis Group.
- Tharme, R. E. (2003). A global perspective on environmental flow assessment: emerging trends in the development and application of environmental flow methodologies for rivers. *River Research and Applications* 19: 397-441.
- Thaulow, H., A. Tvede, et al. (2009). Managing catchments for hydropower generation. *Handbook of Catchment Management*, Wiley-Blackwell: 253-286.
- Toffolon, M., A. Siviglia, et al. (2010). Thermal wave dynamics in rivers affected by hydropeaking. *Water Resources Research* 46.
- Travnicek, V. H., M. B. Bain, et al. (1995). Recovery of a warmwater fish assemblage after the initiation of a minimum-flow release downstream from a hydroelectric dam. *Transactions of the American Fisheries Society* 124(6): 836-844.
- Travnicek, V. H. und M. J. Maceina (1994). Comparison of flow regulation effects on fish assemblages in shallow and deep water habitats in the Tallapoosa River, Alabama. *Journal of Freshwater Ecology* 9(3): 207-216.
- Troelstrup, N. H. und G. L. Hergenrader (1990). Effect of hydropower peaking flow fluctuations on community structure and feeding guilds of invertebrates colonizing artificial substrates in a large impounded river. *Hydrobiologia* 199(3): 217-228.
- Troschel, H. J. (2004). *Fischereibiologischer Beitrag Alte Dreisam (Gottenheim/Wasenweiler - Riegel)*, Interessengemeinschaft DREISAM.

- Trotzky, H. M. und R. W. Gregory (1974). The effects of water flow manipulation below a hydroelectric power dam on the bottom fauna of the Upper Kennebec River, Maine. *Transactions of the American Fisheries Society* 103(2): 318-324.
- Truffer, B. (2010). Integrated environmental management of hydropower operation under conditions of market liberalization. *Alpine Waters*. U. Bundi. Springer, Berlin Heidelberg.
- Truffer, B., J. Markard, et al. (2001). Green electricity from alpine hydropower plants. *Mountain Research and Development* 21(1): 19-24.
- Tuhtan, J. A., S. Wieprecht, et al. (2010). Investigating the connections between habitat suitability, river morphology and stranding risk due to hydropeaking on juvenile European Grayling. First European IAHR Congress, Edinburgh.
- Uhlmann, V. (2001). Die Uferzönosen in natürlichen und regulierten Flussabschnitten. Eawag. Diplomarbeit.
- Valentin, S. (1996). Effects of the hydroelectric plants on rivers: Hydroecological diagnosis and management assistance. Example of the Fontaulier river (Ardeche). *Houille Blanche* 5: 25-31.
- Valentin, S. (1997). Effets écologiques des éclusées en rivière. Experimentations et synthèse bibliographique. *Gestion des milieux aquatiques*. CEMAGREF.
- Valentin, S., F. Lauters, et al. (1996). Modelling temporal variations of physical habitat for brown trout (*Salmo trutta*) in hydropeaking conditions. *Regulated Rivers: Research & Management* 12(2-3): 317-330.
- Valentin, S., P. Sempeski, et al. (1994). Short-term habitat use by young grayling, *Thymallus thymallus* L., under variable flow conditions in an experimental stream. *Fisheries Management and Ecology* 1(1): 57-65.
- Valentin, S., J. G. Wasson, et al. (1995). Effects of hydropower peaking on epilithon and invertebrate community trophic structure. *Regulated Rivers: Research & Management* 10(2-4): 105-119.
- Van Looy, K., H. Jochems, et al. (2007). Hydropeaking impact on a riparian ground beetle community. *River Research and Applications* 23(2): 223-233.
- Vannote, R. L. und B. W. Sweeney (1980). Geographic analysis of thermal equilibria: a conceptual model for evaluating the effect of natural and modified thermal regimes on aquatic insect communities. *The American Naturalist* 115(5): 667-695.
- Vehanen, T. (1997). Fish and fisheries in large regulated peaking-power river reservoirs in northern Finland, with special reference to the efficiency of brown trout and rainbow trout stocking. *Regulated Rivers: Research & Management* 13(1): 1-11.
- Vehanen, T., P. L. Bjerke, et al. (2000). Effect of fluctuating flow and temperature on cover type selection and behaviour by juvenile brown trout in artificial flumes. *Journal of Fish Biology* 56(4): 923-937.

- Vehanen, T., A. Huusko, et al. (2003). Habitat preference by grayling (*Thymallus thymallus*) in an artificially modified, hydropeaking riverbed: a contribution to understand the effectiveness of habitat enhancement measures. *Journal of Applied Ichthyology* 19(1): 15-20.
- Vehanen, T., J. Jurvelius, et al. (2005). Habitat utilisation by fish community in a short-term regulated river reservoir. *Hydrobiologia* 545(1): 257-270.
- Vehanen, T. und M. Lahti (2003). Movements and habitat use by pikeperch (*Stizostedion lucioperca* L.) in a hydropeaking reservoir. *Ecology of Freshwater Fish* 12: 203-215.
- VERBUND Austrian Hydropower (2004). Strom aus Enns, Mur und Teigitsch. Die steirischen Wasserkraftwerke. Informationsbroschüre VERBUND AG, Wien.
- Vetsch, D., P. Rousselot, et al. (2011). Flussgebietsmodellierung mit der Simulationssoftware BASEMENT. *Wasser Energie Luft* 103(4).
- Veza, P., P. Parasiewicz, et al. (2012). Defining minimum environmental flows at regional scale: application of mesoscale habitat models and catchments classification. *River Research and Applications* 28(6): 717-730.
- Vismara, R., A. Azzellino, et al. (2001). Habitat suitability curves for brown trout (*Salmo trutta fario* L.) in the River Adda, Northern Italy: comparing univariate and multivariate approaches. *Regulated Rivers: Research & Management* 17(1): 37-50.
- Illwerke VKW (2009). Kopswerk II - Das grösste Pumpspeicherkraftwerk der Vorarlberger Illwerke AG. Informationsbroschüre Vorarlberger Kraftwerke AG, Bregenz, Österreich.
- Webb, J. A., M. J. Stewardson, et al. (2010). Detecting ecological responses to flow variation using Bayesian hierarchical models. *Freshwater Biology* 55(1): 108-126.
- Weber, C., A. Peter, et al. (2007). Spatio-temporal analysis of fish and their habitat: a case study on a highly degraded Swiss river system prior to extensive rehabilitation. *Aquatic Sciences - Research Across Boundaries* 69(1): 162-172.
- Werlen, K. (2011). Schwall/Sunk: Optimales Abflussregime für Wasserkraftwerke. *Wasser Energie Luft* 103(1): 21-24.
- Westcott, B. und R. Irvine (2010). Duncan Dam Project Water Use Plan - Lower Duncan River Stranding Protocol Development and Finalization. Duncan Dam Project Water Use Plan. BCHydro.
- Weyers, R. S., C. A. Jennings, et al. (2003). Effects of pulsed, high-velocity water flow on larval Robust Redhorse and V-Lip Redhorse. *Transactions of the American Fisheries Society* 132(1): 84-91.
- Wheaton, J. M., J. Brasington, et al. (2011). Linking geomorphic changes to salmonid habitat at a scale relevant to fish. *River Research and Applications* 26(4): 469-486.
- White, R. G. und D. T. Wade (1980). A study of fish and aquatic macroinvertebrate fauna in the South Fork Boise River below Anderson Ranch Dam with emphasis on effects of fluctuating flows. College of Forestry, Wildlife and Range Sciences, Forest, Wildlife and Range Experiment Station, University of Idaho.

- Wickenhäuser, M., W. Hauenstein, et al. (2005). Massnahmen zur Schwallspitzenreduktion und deren Auswirkungen. *Wasser Energie Luft* 97(1/2): 29-38.
- Widmann, W. (2008). Schwallreduzierung durch Zwischenbecken bei Speicherkraftwerken. *Österreichische Wasser- und Abfallwirtschaft* 60(3): 65-72.
- Woodin, R. M. (1984). Evaluation of salmon fry stranding induced by fluctuating hydroelectric discharge in the Skagit River, 1980-1983. Technical report, Washington Dept. of Fisheries.
- Wüest, A. (2010). Downstream relevance of reservoir management. *Alpine Waters*. U. Bardi. Springer, Berlin Heidelberg.
- Wüest, A., A. Bruder, et al. (2012). Potenzial und Grenzen der Wasserkraft. *Eawag News* 72.
- Yi, S. und D. Panayiotis (2010). Modeling unsteady flow characteristics of hydropeaking operations and their Implications on fish habitat. *Journal of Hydraulic Engineering* 136: 1053-1066.
- Young, P., J. Cech, et al. (2011). Hydropower-related pulsed-flow impacts on stream fishes: a brief review, conceptual model, knowledge gaps, and research needs. *Reviews in Fish Biology and Fisheries*.
- Zimmerman, E. G. und M. C. Richmond (1981). Increased heterozygosity at the Mdh-B locus in fish inhabiting a rapidly fluctuating thermal environment. *Transactions of the American Fisheries Society* 110(3): 410-416.
- Zimmerman, J. K. H., B. H. Letcher, et al. (2010). Determining the effects of dams on subdaily variation in river flows at a whole-basin scale. *River Research and Applications* 26(10): 1246-1260.
- Zimmerman, M. J. und M. S. Dortch (1989). Modelling water quality of a reregulated stream below a peaking hydropower dam. *Regulated Rivers: Research & Management* 4(3): 235-247.
- Zitek, A., S. Schmutz, et al. (2009). Evaluating the potential of qualitative reasoning models to contribute to sustainable catchment management. *Ecological Informatics* 4(5-6): 381-395.
- Zolezzi, G., A. Bellin, et al. (2009). Assessing hydrological alterations at multiple temporal scales: Adige River, Italy. *Water Resources Research* 45(12).
- Zolezzi, G., A. Siviglia, et al. (2011). Thermopeaking in Alpine streams: event characterization and time scales. *Ecohydrology* 4(4): 564-576.
- Zurwerra, A. und M. Bur (2009). Abschätzung der Schäden an Fischen und Nährtieren in einer Schwall-Sunk-Strecke der Saane (Freiburg, Schweiz). *Wasser Energie Luft* 101(4): 309 - 315.